

CLAIMS

1. A method for forming a service message for a multi-service environment, said method comprising :

5 digitally signing one or more message components for a first part of a service message;

digitally signing one or more message components for a second part of said service message; and

10 forming said service message from said first and second parts, and first and second digital signatures of said first and second parts.

2. A method according to claim 1, wherein at least one message component is common to both said first and second parts of said service message.

15 3. A method according to claim 1, further comprising associating one or more message components relating to a first service with each other to form said first part, and associating said one or more message components relating to a second service with each other to form said second part.

20 4. A method according to claim 1, wherein said service message includes one or more message blocks, each comprising one or more message components.

5. A method according to claim 4, wherein at least one message block is common to both said first and second parts of said service message.

25 6. A method according to claim 5, wherein two or more blocks comprising one of said first or second parts of said message are related to each other.

30 7. A method according to claim 1, further comprising forming said service message such that cryptographic data for said service message is disposed in a separate part of said message from said first and second parts.

8. A method for decoding a service message comprising first and second parts respectively associated with first and second services of a multi-service environment, said method comprising:

receiving said service message at a first service;
5 verifying only said first part of said message at said service;
receiving said service message at a second service; and
verifying only said second part of said service message at said second service.

9. A program element comprising program code for configuring a computer system
10 to form a service message for a multi-service environment, the program code operable
to:

digitally sign one or more message components for a first part of a service
message;
digitally sign one or more message components for a second part of said service
15 message; and
form said service message from said first and second parts, and first and second
digital signatures of said first and second parts.

10. A program element comprising program code translatable to configure a
20 computer system to form a service message for a multi-service environment, the
program code operable to:

receive said service message at a first service;
verify only said first part of said message at said service;
receive said service message at a second service; and
25 verify only said second part of said service message at said second service.

11. A program element comprising program code for configuring a computer system
to decode a service message comprising first and second parts respectively associated
with first and second services of a multi-service environment, the program code
30 operable to:

verify only said first part of said message for said first service; and
verify only said second part of said message for said second service.

12. A program element comprising program code translatable to configure a computer system to decode a service message comprising first and second parts respectively associated with first and second services of a multi-service environment, the program code operable to:

5 verify only said first part of said message for said first service; and
 verify only said second part of said message for said second service.

13. A computer-readable medium encoded with computer-readable program code for configuring a computer system to form a service message for a multi-service environment, the program code operable to:

10 digitally sign one or more message components for a first part of a service message;
 digitally sign one or more message components for a second part of said service message; and

15 form said service message from said first and second parts, and first and second digital signatures of said first and second parts.

20 14. A computer-readable medium encoded with computer-readable program code translatable for configuring a computer system to form a service message for a multi-service environment, the program code operable to:

25 digitally sign one or more message components for a first part of a service message;
 digitally sign one or more message components for a second part of said service message; and

30 form said service message from said first and second parts, and first and second digital signatures of said first and second parts.

15. A computer-readable medium encoded with computer-readable program code for configuring a computer system to decode a service message comprising first and second parts respectively associated with first and second services of a multi-service environment, the program code operable to:

35 verify only said first part of said message for said first service; and

PCT/US2014/052660

verify only said second part of said message for said second service.

16. A computer-readable medium encoded with computer-readable program code translatable for configuring a computer system to decode a service message comprising
5 first and second parts respectively associated with first and second services of a multi-service environment, the program code operable to:

verify only said first part of said message for said first service; and
verify only said second part of said message for said second service.

10 17. An electronic signal encoding a service message for a multi-service environment, wherein first and second parts of said message are each separately digitally signed.

15 18. An electronic signal according to claim 17, wherein cryptographic data for said message is a third, separate part of said message.

19. An electronic signal according to claim 17, wherein said first part of said message is associated with a first service, and said second part of said message is associated with a second service.

20 20. An electronic signal according to claim 17, comprising a plurality of message components forming said message, said first and second parts each comprising one or more of said components.

25 21. An electronic signal according to claim 17, wherein at least one message component is common to both first and second parts of said service message.

22. An electronic signal according to claim 20, comprising a plurality of message blocks each including one or more of said message components, said first and second parts each comprising one or more of said message blocks.

23. An electronic signal according to claim 22, wherein two or more blocks comprising said first or second parts of said message are related to each other.

24. A computer system for a multi-service environment, the computer system
5 configured to:

receive two or more message components for a service message;

digitally sign one or more of said message components for a first part of said service message;

10 digitally sign one or more of said message for a second part of said service message; and

form said service message from said first and second parts, and first and second digital signatures of said first and second parts.

25. A computer system according to claim 24, wherein at least one message
15 component is common to both said first and second parts of said service message.

26. A computer system according to claim 24, further configured to associate one or
more message components relating to a first service with each other to form said first
part, and associating said one or more message components relating to a second service
20 with each other to form said second part.

27. A computer system according to claim 24, wherein said first part of said
message is associated with a first service, and said second part of said message is
associated with a second service.

25

28. A computer system according to claim 27, wherein at least one message block is
common to both said first and second parts of said service message.

29. A computer system according to claim 27, wherein two or more blocks
30 comprising one of said first or second parts of said message are related to each other.

P009357US P5050

30. A computer system according to claim 24, further configured to form said service message such that cryptographic data for said service message is disposed in a separate part of said message from said first and second parts.

5 31. Apparatus for forming a service message for a multi-service environment, comprising:

means for receiving one or more components for a service message;

means for digitally signing one or more of said components for a first part of said service message;

10 means for digitally signing one or more of said components for a second part of said service message; and

means for creating said service message from said first and second parts, and first and second digital signatures of said first and second parts.

15 32. A computer system for a multi-service environment, the computer system configured to:

receive a service message comprising first and second parts respectively associated with first and second services of said multi-service environment;

verify only said first part of said service message for said first service; and

20 verify only said second part of said service message for said second service.

33. Apparatus for decoding a service message comprising first and second parts respectively associated with first and second services of a multi-service environment, said apparatus comprising:

25 means for receiving said service message;

means for verifying only said first part of said service message for said first service; and

means for verifying only said second part of said service message for said second service.

34. A computer network comprising at least one computer system connectable to at least one further computer system via a network, the at least one computer system configured to:

receive two or more message components for a service message;

5 digitally sign one or more of said message components for a first part of said service message;

digitally sign one or more of said message for a second part of said service message; and

form said service message from said first and second parts, and first and second
10 digital signatures of said first and second parts.

35. A computer network comprising at least one computer system connectable to at least one further computer system via a network, the at least one computer system configured to:

15 receive a service message comprising first and second parts respectively associated with first and second service of said multi-service environment;

verify only said first part of said service message for said first service; and
verify only said second part of said service message for said second service.